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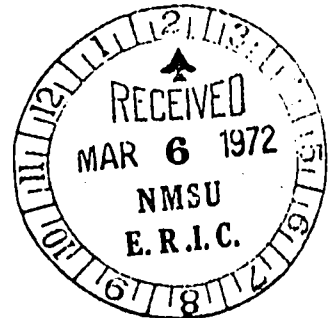
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ABSTRACT

The University of New Mexico College Enrichment Program (CEP) recruits disadvantaged students to the campus, helps them prepare for college life with an intensive summer orientation, helps them obtain financial assistance, and aids them in dealing with the college environment via counseling, tutoring, and other supportive services. The CEP's immediate objective is to retain students in college. Long-range goals are to increase the proportion of disadvantaged students at the university, to help them complete their education, to increase their rate of entry into the professions, to aid the university in examining the manner in which it acts upon young people from disadvantaged backgrounds, and to aid in the development of human skills and to promote the application of those skills to real needs. Retention rate is the key measure used in the evaluation of the CEP. In addition, grade point average, development of reading skills, and development of study attitudes and study habits are examined. Evaluative research findings indicate that the CEP has had significant influence on the retention of disadvantaged students and has provided major impetus in motivating participating students to attain a college degree. (JH)

A REPORT  
of the  
UNIVERSITY OF NEW MEXICO'S  
COLLEGE ENRICHMENT PROGRAM



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## SUMMARY AND RECOMMENDATIONS

### A. BACKGROUND

A college education has been a promise of the American Dream for those young Americans with the ability to successfully compete in college. And in terms of needs, communities everywhere require the services of well-trained professional people. But relatively few disadvantaged students seek a college education. Of those who enter college, a high percentage drop out before completing a degree. This state of affairs contributes to the continuance of disadvantage, for the young people who drop out of school will not return to their communities as leaders, or as providers of necessary professional services.

Disadvantage, as the term is used in this report, refers to a broad complex of factors that, taken together, produce New Mexico's problems of poverty, poor education, limited ambition, and low employment. These social and economic disadvantages have human effects, and very unfortunate ones. It is the central mission of the College Enrichment Program (CEP) to counteract these human effects as they appear among the college-age people of New Mexico. The purposes underlying the mission are that these young people acquire the training to live productively, and that they apply their skills to help meet New Mexico's needs. Indeed, we hope for more. We hope that today's CEP students will inspire those that come after them, and that they will one day provide leadership in addressing the State's social and economic problems.

The State's north-central counties are the scene of widespread disadvantage. The great majority of CEP students are recruited from those counties. Therefore, most of the participants in the program are Spanish-speaking students; some are Indian; a few are Black; and a few are Anglo.

CEP recruits disadvantaged students to the campus, helps them prepare for college life with an intensive summer orientation, helps them obtain

financial assistance, and aids them in dealing with the college environment (especially in the first year) with counseling, tutoring, and other supportive services. The progress of those who stay in school is closely followed. They receive frequent career counseling and encouragement toward post-graduate and professional programs. And, as students advance through the university, CEP turns their developing talents toward aiding newer entrants into the program.

The ideas being carried into operation by CEP were developed in 1968. After a long search for revenue by UNM officials, the program was funded for its first year by the federal Upward Bound Project. The UNM experience and that of others supported the formation of the Special Services for Disadvantaged Students program, under which UNM recently obtained a federal grant. Initial success of College Enrichment encouraged the New Mexico State Legislature to fund CEP at an expanded level. At the present time (Semester I, 1971) 201 CEP students are enrolled: 183 at the University of New Mexico, 13 at Highlands University, two at New Mexico State University; and one each at Texas Borger College, St. Vincent's Nursing School, and the El Rito School.

#### B. GOALS AND OBJECTIVES

CEP's immediate objective is to retain its students in college. Long-range goals are to increase the proportion of disadvantaged students at UNM, to help them complete their educations, to increase their rate of entry into the professions, to aid the university in examining the manner in which it acts upon young people from disadvantaged backgrounds and, ultimately, to aid in the development of human skills and to promote the application of those skills to real needs.

CEP is making substantial progress in meeting these goals. The elements of this progress are detailed in the body of this report. Briefly, however, the retention rate for young people enrolled in CEP is significantly higher than that for other students. There is evidence that CEP is encouraging other students from disadvantaged backgrounds to consider going on to college. And CEP has worked effectively with other

university agencies in bringing about policy changes that ~~make it more~~ feasible for disadvantaged students to enter college, and more likely that they will succeed in college careers.

Nevertheless, it will be several years before CEP can be evaluated in terms of its long-range goals. The program's most advanced students are juniors this year. Several years must elapse before the proportion completing undergraduate degrees and the proportion going on to post-graduate training can be evaluated.

#### C. DESCRIPTION OF THE COLLEGE ENRICHMENT PROGRAM

CEP consists of two major components: an intensive summer college orientation and preparation program and a special broad counseling and tutoring program during the academic year.

##### Summer Program

A total of 106 students were recruited for the 1970 summer orientation and preparation program. They were graduates of 22 north-central New Mexico high schools. They were screened to comply with federal poverty guidelines, individual potential for college success, and ability to meet university entrance requirements.

The summer program was eight weeks in length. The daily program consisted of instruction in English and mathematics. In addition, a course in reading skills was offered. A cultural awareness seminar was also held for the purpose of improving the self-concept of the students.

As a supplement to the academic component of the program, the students were exposed to several cultural activities: Albuquerque Civic Light Opera presentations, a Santa Fe Opera, music recitals, and plays. In addition, they attended a professional baseball game at the new Albuquerque Sports Stadium and toured the State Capitol in Santa Fe. Social and recreational activities were also included.



### Academic Year Program

In the fall, 96 of the summer participants entered college as freshmen. During the 1970-71 academic year, CEP offered counseling in financial, academic, social, and personal matters. Each counselor was assigned a certain number of students and it was his responsibility to maintain contact with each of the assigned students. This responsibility was carried out by personal visits, letters, telephone calls, and home visits. Tutoring in any area was provided upon student request. In addition, CEP students were encouraged throughout the year to attend university and community cultural activities.

#### D. EVALUATION TECHNIQUES

Retention rate was the key measure used in the evaluation of the 1970-71 College Enrichment Program. In addition, grade point average, development of reading skills, and development of study attitudes and study habits were examined. A carefully selected control group was used to compare retention rate and grade point average. This group consisted of students who were from low-income families, who received financial assistance from the university, and who were from the same or similar high schools as CEP students. Reading skills and study habits were measured by standardized tests. At two points during the second program year, students were asked to evaluate the program. And finally, school principals and counselors who participated in the recruiting phase were surveyed to assess CEP's impact on the educational plans and goals of other disadvantaged students.

#### E. SUMMARY OF MAJOR FINDINGS

The evaluative research findings indicate that CEP has had significant influence on the retention of disadvantaged students at the University of New Mexico and has provided major impetus in motivating participating students to attain a college degree. Specific findings for the evaluative criteria examined were:

1. The retention rate (percentage of CEP participants who, after enrolling as freshmen, subsequently re-enrolled in the fall of 1971) for the incoming 1970 CEP students was 30 percent higher than that of the control group. For the 1969 Upward Bound CEP group, retention rate was found to be 40 percent higher than that of all 1969 UNM freshmen.

2. The grade point average of CEP students was higher than that of the control group, but somewhat below that of all freshmen. In regard to the grade point average distribution, a larger proportion of 1970 CEP students received passing grade point averages than the control group for both semesters of 1970-71.

3. CEP students showed significant gains over the course of the summer program in each of the reading skill areas of vocabulary, comprehension, and reading rate.

4. The CEP students showed a significant gain in study habits over the course of the academic year.

5. In the attitude survey of CEP students, most indicated that the program had been of major benefit to them, and about one-half of them indicated that they would not have enrolled in college if CEP had not actively recruited them.

6. Eighty-two percent of the counselors and principals contacted in the recruiting of CEP students felt that CEP had a major impact in influencing other disadvantaged students in their schools to enter college.

#### F. SUMMARY OF RECOMMENDATIONS

Based on the experience to date in the operation of the College Enrichment Program and the results of the thorough evaluation of the 1970-71 CEP operation, the following recommendations for future direction of College Enrichment are made:

1. It is recommended that state funding for CEP be continued at approximately the current level. We request \$148,300 for the 1972-73 fiscal year. Experience thus far indicates that this level of funding will permit CEP to provide services to a somewhat larger number of students.

2. The summer program will be divided into two four-week sessions (instead of the continuous eight-week schedule used in the 1969 and 1970 summer programs). This will provide the opportunity for students who may otherwise be excluded by their need to work to consider participating in the College Enrichment Program.

3. After experimentation with offering summer instruction work both for credit and no credit, it is recommended that, because it is in fact by way of preparation, no credit be given.

4. It is recommended that the reading skills component of the summer program be integrated with the English instruction.

5. Because students are often not aware of needs for counseling and tutoring until problems are well advanced, we recommend that counselors be responsible for specific individuals to assure continuous monitoring of individual progress.

6. As students advance to their junior year, it is recommended that career counseling in post-graduate and professional pursuits be intensified.

7. Efforts will be made to maintain contact with students who drop out. We believe it important that we learn from their experiences, and that the students remain aware of university interest in them.

8. Meetings of the CEP group will be held monthly instead of weekly. The CEP staff feels that this level of contact with participating students is sufficient to avert any feelings of loneliness or isolation which CEP students may experience while at UNM.

9. Students will continue to be encouraged to attend university and community cultural events.

10. Since allowances must be made for planning on the part of students and their families, recruitment will begin earlier in the year and be directed to high school juniors as well as seniors. Also, ways will be explored to involve present students in recruitment.

11. Close contact will continue to be maintained with key university offices, such as the Student Aids Office, and with key people in the community--especially those who can offer part-time employment.

## PREFACE

A college education has been a promise of the American dream for those young Americans with the ability to successfully compete in college.

The fact is that a very large segment of young Americans with college potential never enroll in college. These young people are the economically disadvantaged youth, many of whom belong to one of the major ethnic groups in the United States--the Spanish-speaking Americans (the Mexican-Americans and the Puerto Ricans), the Native-Americans, and the Afro-Americans. A single factor or a combination of factors may contribute to disadvantaged youth not enrolling in college: inadequate high school preparation; minimal information regarding college; no encouragement to go to college; lack of financial resources to pay for a college education; home background in an urban ghetto area or an isolated rural area; indigenous culture different from dominant culture.

When students from low-income families do enroll in college, very few attain the bachelor's degree, even fewer pursue and complete a graduate program. Indeed, the dropout rate of these students is much higher than the general college population. Many reasons may contribute to the high dropout rate including: Poor high school preparation; substandard English--in many cases due to learning English as a second language; ineffective study habits; unfamiliarity with academic policies; lack of financial resources to continue in college.

As a result of these characteristics, students usually need one or more of the following services: general information on college; active recruitment; assistance in securing financial aid (loans, grants, or scholarships); a college preparatory and orientation program prior to enrolling in college; and counseling, academic advisement, career information, and tutoring.

In response to the above, the University of New Mexico organized the College Enrichment Program in 1968. After initial Federal support, State funds were provided to continue the program on the condition that the University submit an evaluation report to the Board of Educational Finance--the State's Higher Education Coordinating Agency. This paper describes the program and evaluates its effectiveness.

October 15, 1971

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Director  
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## I. INTRODUCTION

The College Enrichment Program (CEP) is designed to provide the opportunity for disadvantaged students<sup>1</sup> to realize professional goals through successful completion of undergraduate and graduate education. The program, now entering its third year at the University of New Mexico, offers an intensive summer orientation to prepare the incoming freshman participants for college life. During the academic year, the program staff provides tutoring services and extensive counseling. Counselors help students obtain financial aid, part-time employment, select a major field of study, investigate career opportunities, and solve personal problems that might deter them from staying in school.

The College Enrichment Program responsibilities are carried out by three professional staff members and between 15 and 20 part-time tutors. All of the tutors are upper-division students or graduate students. During the summer, the staff is expanded to include eight instructors, two graduate student counselors, and about ten student advisors (all of whom are second or third year CEP participants). The program is administered under UNM's Institute for Social Research and Development, an organization concerned with bringing University resources to bear on the social and economic problems of the State of New Mexico.

### A. PROGRAM RATIONALE

A large segment of young people with college potential never enroll in college, much less complete a bachelor's degree program or achieve a graduate degree.

Many of these young people are the economically disadvantaged

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<sup>1</sup>For purposes of this report, disadvantaged students are those whose family incomes meet federal poverty guidelines.

youth.<sup>2</sup> Many of these low-income students belong to one of the three major minority ethnic groups in the United States--the Spanish-Americans, the American-Indians, and the Black-Americans. Many factors contribute to their not enrolling in college. A few of these are:

1. Lack of money to finance a college education
2. Little or no encouragement to enroll in college
3. Lack of information.

A study was conducted by the University of New Mexico of the entering Freshman class of 1963. According to the report, the Spanish-surnamed students tended to drop out of college in significantly greater numbers than non-Spanish-surnamed students the first semester. The data also show the Spanish-surnamed students had significantly lower grade point averages than the non-Spanish-surnamed students. After the first semester, however, there is no noteworthy difference in grade point average or dropout rate between the Spanish-surnamed students and the other students. The report suggests that the data tend to support the idea that the Spanish-surnamed students experience a trying and difficult initial period of adjustment.<sup>3</sup> The reasons for dropping out were not analyzed in the study.

It may be that low-income minority students drop out for one or more of the following reasons:

1. Poor high school preparation
2. Substandard command of English, often due to learning English as a second language
3. Poor study habits

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<sup>2</sup>The U.S. Bureau of the Census followed a group of 1965 high school graduates and found that as family income went up, so did college attendance: 19.8 percent for those with family incomes of less than \$3,000; 32.3 percent for incomes of \$3,000 to \$4,000; 36.9 percent for incomes of \$4,000 to \$6,000; 41.1 percent for \$6,000 to \$7,000; 51 percent for \$7,500 to \$10,000; and 61 percent for incomes of \$10,000 to \$15,000.

<sup>3</sup>The Invisible Student: A longitudinal Study of the Beginning Freshman Class of 1963 at the University of New Mexico (Albuquerque: University College and Counseling Center, the University of New Mexico, May 1969), 24-25.



4. Cultural differences
5. Home environment in an urban ghetto area or an isolated rural area
6. Academic and financial aid policies that tend to discourage or discriminate against low-income students (or lack of sophistication by the students in dealing with such policies).

In light of the above factors, these low-income students need the following types of services if they are to realize their academic potential:

1. Active recruitment
2. Assistance in obtaining financial aid (loans, grants, and scholarships)
3. A college preparatory/orientation program prior to enrolling in college (mainly to improve their skills in reading, writing, use of the library, and mathematics and to acquaint them with the college environment)
4. Academic and career counseling
5. Tutoring, especially during the freshman year.

The College Enrichment Program was organized to provide the above services. It is designed to recruit and assist low-income students to succeed in college. It offers a vehicle for their early academic survival. At the very minimum, it is a supportive device for increasing their chances for academic survival.

In addition, the program staff tries to raise the level of aspiration for each CEP student and to provide the consequent support with which each student can realistically realize his ambitions. In this respect, the program hopes to encourage students to reach their highest possible potential, thus hopefully completing post-graduate and professional degrees. It is intended that by reaching their full potential, they will provide leadership and inspiration for other low-income disadvantaged young people.



## B. PROGRAM HISTORY

In 1968, Dr. George P. Springer, Dean of the Graduate School and Vice President for Research, and Dr. Richard J. Griego, Associate Professor of Mathematics, developed a proposal for a program geared to the special problems of minority group students. The proposed program was conceived as a means of nurturing minority group students through a bachelor's degree so they might later function successfully in graduate and professional training environments.

After an exhaustive investigation of public and private funding sources, they submitted the proposal to the Upward Bound Program of the Office of Economic Opportunity. Upward Bound is a special federal program designed to help low-income high school students achieve at a level necessary for college entrance. Its basic premise is this: There are many bright youngsters born into America's poor families. These youngsters, though generally underachievers in high schools, are promising nonetheless and, if given hope and a program of enrichment and remediation, will demonstrate that promise in academic motivation and achievement.

Although the Upward Bound Program is basically designed for high school students, the Upward Bound Division of the Office of Economic Opportunity funded the UNM program in September 1968 as one of only two college-level programs in the nation. Because of Upward Bound requirements, emphasis of the UNM program shifted from minority group members to low-income students; however, most of the participants were Spanish-Americans.

The program called for recruitment of 45 students who met the criteria of Upward Bound and the UNM program design: poverty (as measured by OEO guidelines), potential for academic success, and at least minimal entrance requirements to the University. Recruitment effort was restricted to a seven-county Northern New Mexico area. The students were recruited during the 1968-69 school year. They were brought to the UNM

campus in the summer of 1969 to participate in an eight-week enrichment program. Subsequently, these students enrolled in the 1969 Fall Term. The high retention rate of the group--41 out of the 44 students enrolling for the second semester--encouraged the University administration to request State funds to continue and expand the College Enrichment Program. A budget of \$140,000 was approved for the year 1970-71, and permitted recruitment of 106 students from essentially the same areas as before. The students participated in an eight-week summer program similar to that conducted the previous summer. The only major changes were:

- 1) college credit was offered for some of the summer course work;
- 2) a remedial arithmetic course was substituted for one in mathematical logic conducted the previous summer; and
- 3) a reading skills course was added.

A total of 96 of these students subsequently enrolled in college, 90 at UNM and six at New Mexico Highlands University.

A budget of \$143,000 was approved for the year 1971-72. Ninety-six students were recruited for the summer of 1971. On the basis of the previous year's experience, the summer program was divided into two four-week sessions, with students allowed to choose the session they wanted to attend. This enabled them to work at least half the summer to earn money for college. In the past, the students inability to work during the summer had prompted many of the more promising applicants to reject CEP participation. Other program changes are described in Section V. A total of 94 of these students have enrolled for the fall semester.

At this point (Semester I, 1971), 201 CEP students are enrolled in college. A breakdown of the students by program year is shown in Table 1.

TABLE 1.  
Number of CEP Students Currently Enrolled in College

	<u>Original Number Enrolled</u>	<u>Present Number Enrolled</u>	<u>Retention Rates</u>
1969 Upward Bound (Juniors)	45	32/45	71% (over two years)
1970 CEP Group (Sophomores)	96	75/96	78% (over one year)
1971 CEP Group (Freshmen)	94	94	

The retention rates shown for CEP students are significantly higher than those for their respective freshman classes as will be shown in Section III.

#### C. PROGRAM GOALS

During the evolution of the program, the content of the summer session and the types of services provided have been adapted to the changing needs of the individual students. But the basic objectives of the program remain the same.

The immediate objective is to retain the CEP students in college. The long range goals of the program are:

1. To increase the proportion of students from disadvantaged backgrounds at the University of New Mexico
2. To assist disadvantaged students in successfully completing their undergraduate and graduate programs
3. To increase the number of students from disadvantaged backgrounds entering the professions
4. To assist the University in re-examining its attitudes, methods, and practices as they affect disadvantaged students in such areas as recruitment, admission, financial aid, retention, counseling, tutoring, student personnel services, and curriculum.

Although it will be several years before some of these goals are realized, indications are that CEP is making considerable progress in

these directions. CEP students are staying in college at a higher-than-average rate, and it may be expected that a significant proportion will receive bachelor's degrees. Hopefully, many of them will elect to go on to graduate school; career counseling is being intensified with a view toward this goal. CEP is enabling a number of disadvantaged students to attend college who otherwise might not have been able to attend, and CEP recruitment appears to be influencing other disadvantaged students to apply for college entrance. Further, CEP has worked with other University agencies in promoting several recent policy changes at UNM that should make it easier for disadvantaged students to enter college and perform satisfactorily. These accomplishments are discussed further in Sections III and IV.

#### D. SCOPE OF THIS REPORT

This report is designed to describe CEP, evaluate its success to date, and discuss changes being implemented that may contribute to greater success in the future. To simplify this presentation, most of the discussion will be limited to the program of the past year (June 1970 through May 1971). This decision has been made because

1. The program content of 1969-70 and 1970-71 was essentially the same (with the exceptions noted under the program history)
2. The experience of the first year of operation provided an opportunity to plan a thorough evaluation of the second year of operation
3. The third-year program has not progressed sufficiently to permit more than a very subjective evaluation.

Unless otherwise noted, the entire discussion of Sections II, III, and IV (description of the program, evaluation, and success in meeting program goals) is devoted to the 1970-71 program year. Section V includes a discussion of changes made during the 1971 summer orientation session and the rationale for those changes, as well as other alterations planned for the current academic year.

## II. DESCRIPTION OF THE 1970-71 PROGRAM

This section consists of three major parts: the recruitment plan, a description of the summer phase, and a description of the academic year phase.

### A. RECRUITMENT

The recruiting was based on the recruiting pattern of the previous year. Twenty-five schools in the target area (mainly Central-Northern New Mexico) were contacted during the fall of 1969 and spring of 1970 for the purpose of recruiting CEP candidates. In most cases, contact was through the school counselor; in a few cases the contact was made through the school principal. Normally, the counselor arranged a visit by a CEP staff member, who discussed the program with interested students. The school counselor did preliminary screening of students and created initial student interest.

A total of 178 high school seniors originally applied to CEP in the spring of 1970. Their applications were evaluated by the following criteria:

1. Students should meet the U.S. Office of Economic Opportunity Upward Bound Program poverty guidelines.
2. Students should show evidence of potential for college success either through high school grade point averages, high school counselor or principal recommendations, personal interviews, achievements, aptitude test scores, or some combination of these.
3. Students should at least meet minimum requirements for entrance to the University. (The UNM Admissions Office was most helpful in giving students maximum leeway in this regard.)

A total of 106 participants was selected for the 1970 summer program. Of these students, 90 enrolled for the first semester of the freshman year at UNM and an additional six enrolled at New Mexico Highlands

University at Las Vegas (contact was maintained with these students throughout the year by the UNM staff). Included in the ten who elected not to enter college were five members of the Job Corps who were accepted by CEP on a provisional basis to allow them to see if they wanted to pursue a college career. All of them decided they did not want to do so.

B. SUMMER PHASE

This part of the section will list the objectives of the summer program, and describe the academic, social, and cultural components of the program.

Objectives

It was anticipated that a large proportion of the students participating in the summer phase would be deficient in English and/or mathematics. Therefore, the instructional program was designed to provide intensive instruction in English, reading skills, and mathematics.

The summer program was also designed to orient students to university life and to help them cope with the University and its new demands. Students were thus provided with an opportunity to evaluate university life without a great loss of time or money by them or the University.

It was expected that the program would fulfill the following objectives during the course of the summer (and in doing so increase the chance that students would enter in the fall and successfully attain a college degree):

1. Improvement of skills in specific subject areas (mainly English and mathematics)
2. Improvement in reading skills (rate, comprehension, and vocabulary)

3. Increased motivation and improved attitudes toward education (via extensive tutoring, counseling, and support services)
4. Broadening of perspectives and knowledge about cultural activities
5. Improving their individual self-concepts
6. Giving students an opportunity to determine whether they wish to pursue college work
7. Orientation to college life.

#### Academic Component

When students arrived at UNM, they were assigned rooms at one of the dormitories on campus. They then attended an orientation session in which they were familiarized with the scope and goals of CEP. In addition, each student was assigned to a student counselor (a participant in the previous year's program). Each counselor worked with five students. It was the responsibility of the student counselor to assist them with any problems (academic, financial, social, or personal). The professional staff was easily accessible to the students on a need basis and on an informal social basis to encourage interaction between students and staff. Tutoring services were provided to students experiencing academic difficulties. The various instructors tutored students before and after regular class time.

The academic component of the program consisted of daily instruction in freshman English (for credit) and mathematics. In addition, a reading skills course that emphasized reading speed, comprehension, vocabulary, and improvement of study skills and habits was offered. A cultural-awareness seminar, designed to improve their self-concept, was offered.



### Social and Cultural Component

As a supplement to the academic component of the program, a social and cultural program was provided for educational and recreational purposes. This phase gave the students an opportunity to do things that many of them had never been able to do and never expected they would be able to do. The activities broadened the students' range of experience and showed them that college life offered more than studying and tests--it offered a new life style that would hopefully continue throughout and beyond their college careers. Such activities also fostered cohesiveness and camaraderie within the group.

Students attended performances of the Albuquerque Civic Light Opera and a Santa Fe Opera, as well as two music recitals. They toured the State Capitol in Santa Fe and the Carlsbad Caverns and attended a professional baseball game at the Albuquerque Sports Stadium. Other activities included skating parties, a picnic, a dance, and a dinner (at the end of the summer program).

Also under the summer phase, eyeglasses and limited dental care were provided.

### C. ACADEMIC YEAR PHASE

At the start of the first semester of 1970-71, ninety CEP freshmen were enrolled at UNM, six CEP freshmen were enrolled at New Mexico Highlands University, and an additional 41 CEP sophomores (from the original group) were enrolled at UNM.

Activities with these students during the year are described below. Some specific examples are given to show how these activities helped individual students.



### Counseling Services

Students were encouraged to talk with counselors whenever they needed help of any kind. At the beginning of the semester, counselors helped students select their courses and assisted freshmen with registration. Later they contacted professors and various University agencies to help solve individual problems. Financial help (up to \$1600 per year) was provided to most of the students through National Defense Education Act loans and matching Educational Opportunity Grants. A total of approximately \$54,000 in loans and \$54,000 in grants was made to the 1970 CEP students for the two semesters. If students needed more money, counselors assisted them in applying for part-time jobs. Students, especially freshmen carrying 16 hours were discouraged from working. The loan-grant funding was adequate for most students with a little financial help from home.

Counselors tried to instill confidence in the students that they could succeed in the college environment, and some of the students have exhibited a marked change in aspiration level since they began the program. One girl noted that she was undecided between pursuing a major in Spanish or a two-year data processing course when she entered CEP. CEP helped her to apply for a summer session in Spain, sponsored by UNM. Although only a beginning sophomore, she was accepted for the program (which was attended mainly by graduate students) and completed the session with an "A" average. Now she wants to become a Professor of Spanish.

### Tutoring Services

Tutoring was provided in any subject area requested by the students. Sessions were conducted by about 15 part-time tutors, sometimes on a one-to-one basis. The largest demand was for tutoring in math and English. These sessions gave the students, especially freshmen, an opportunity for individual attention. Many of them

were having special difficulty coping with the beginning courses that traditionally have from 50 to 100 or more students.

One girl said tutoring helped her bring a "C" in math up to a "B" and kept her from failing Biology. Another said she failed her midterm exam in psychology and was in danger of failing the course. With tutoring, she made an "A" on the final and ended the semester with a "C" average. However, students who are having trouble are not the only ones to take advantage of tutoring. One boy related that he signed up for tutoring in sociology and raised his "B" to an "A."

Over 800 hours were devoted to tutoring. The figures are given below:

<u>SUBJECT</u>	<u>TOTAL HOURS</u>
English	200
Social Sciences	200
Mathematics	150
Physical Sciences	150
Spanish	50
Psychology	50
Civil Engineering	15
Business Administration	15

The number of tutors (all part-time) who were employed tutoring at any one time varied from fifteen to twenty-five. All of the tutors were either upper-division students or graduate students.

#### Group Meetings

The staff met weekly with CEP students at group meetings. They discussed the program and tried to assess its strengths and weaknesses. Sometimes, they just held informal discussions or "rap"

sessions about individual problems and general problems, both on-campus problems and society problems. Career opportunities in various fields were frequently discussed.

These meetings also gave the staff an opportunity to administer questionnaires to obtain students' views on the value of the program and to give follow-up tests on reading skills and study habits and attitudes.

Contact at group meetings tended to foster a feeling of "togetherness" or unity, and many of the students indicated that early and continued identification with a group (beginning with the summer phase) helped to make them more outgoing in other social and classroom contacts at the University.

Personal contact was also maintained with the students at Highlands University. In addition, the staff used memos, telephone calls, and personal letters to try to stay aware of the progress and problems of each student.

#### Social and Cultural Activities

Enrichment opportunities of the summer phase were continued through the academic year at a limited level. All students were encouraged to purchase activity cards that entitled them to half-price admission into a broad range of campus cultural activities. For special events (particularly plays at Popejoy Hall), CEP purchased a large block of tickets (paying the half-price normally paid by the student). These tickets were distributed to students who wanted to attend. Students were also encouraged to attend other cultural events such as recitals and art shows that were either free or required only an activity card for admission.

### Recruitment

The other major activity of the staff during the 1970-71 academic year was recruitment of 96 new participants for the 1971-72 program. Recruitment followed the same general lines as in the previous year.

### III. EVALUATION OF THE 1970-71 PROGRAM

#### A. EVALUATION TECHNIQUES

##### Indexes Used

The key index to the success of the program is the retention rate (the percentage of CEP students who re-enrolled for the Fall Semester of 1971). The retention rate is particularly important in view of the fact that low-income minority group students tend to face a particularly difficult initial period of adjustment as noted earlier in this report.

Three other indexes were used to evaluate factors that have a direct bearing on retention rate: grade point average, assessment of reading skills, and survey of study habits and attitudes. In addition, student attitudes toward the program were measured by a questionnaire, and the influence of CEP recruiting on college entrance by other disadvantaged students in the target area was assessed by an informal telephone survey.

##### Comparison of CEP and Control Groups

For purposes of comparison, a control group was selected that matched the CEP group as closely as possible on a number of important characteristics. The control group consisted of students from low-income families meeting National Poverty Guidelines and who received financial assistance--either a loan, a scholarship, a grant, or some combination of the three. An attempt was made to select individuals from the same high schools that the CEP students represented. Where an exact match was not possible, control students were selected from high schools that were considered similar in character.

A group of 68 control subjects who seemed to be similar to the CEP population was selected. Comparisons were made on three variables that were believed to be relevant: high school grade point average, American College Test (ACT)<sup>4</sup> scores, and financial assistance received. Results of that comparison are shown in Table 2.

TABLE 2.  
Comparison of CEP and Control Groups

	<u>CEP Students</u>	<u>Control Group</u>
Mean high school grade point average	2.73	2.72
Mean ACT percentile ranks <sup>5</sup>		
English	35.97	41.77
Math	36.44	48.79
Social Studies	35.93	45.16
Natural Science	38.13	45.29
Composite	33.58	44.24
Mean total financial assistance received	\$1255	\$1159

Results of the comparison revealed that the groups were in fact closely matched in high school grade point average and financial

<sup>4</sup>The ACT is a widely used achievement test for assessing college readiness. It measures students' achievements in English, math, social studies, and natural science. The ACT composite score is a total or overall score, reflecting combined performance in all four academic areas.

<sup>5</sup>A raw score is the actual test performance score (usually the number of right responses) of the individual being examined. A raw score, to be most meaningful, must be interpreted with the aid of other derived scores. One of these is the percentile rank, a figure which places each student somewhere between 1 and 99 and lets him know exactly where he stands in reference to the group used to "norm" the test. Thus, if a student receives a percentile rank of 50 this indicates that his performance on the test was better than that of 50 percent of those in the norm group.

assistance received. However, statistical analysis revealed that there was a significant difference between the two groups in favor of the control group on all ACT scores except English.

The control group was used to make valid comparisons with the CEP group in retention rate and grade point average. The control group was not used in assessment of reading skills and study habits and attitudes. Instead, comparisons on these measures were made in reference to the norms of the two tests.

## B. EVALUATION RESULTS

### Retention Rate

Because the immediate objective of the program is to retain CEP students in college and because success in achieving this objective moves CEP closer to its long range goals, the retention rate was the key measure in the program evaluation. Retention rates of the 1969 and 1970 CEP groups were compared with the retention rates of the freshman classes of those two years. In addition, the 1970 CEP group's retention rate was compared with that of the control group. (Retention rate, in this study, refers to the percentage of students who re-enrolled in the fall of 1971 after being initially enrolled as freshmen in the fall of 1969 or the fall of 1970.)

Table 3 shows the retention rate of the 1970 CEP freshman group as compared with that of the control group and all 1970 UNM freshmen. These data show that the retention rate of the 1970 CEP group was 30 percent higher than that of the control group and 18 percent higher than that of all 1970 UNM freshmen.

If the retention rate of 60% for the control group is applied to CEP students, then the expected CEP re-enrollment for Fall of 1971 would have been only 58 as compared to the 75 who actually re-enrolled. This means that 17 CEP students who probably would have

TABLE 3.  
Retention Rate of 1970 CEP Freshmen Compared  
To 1970 Control Freshmen And All 1970 Freshmen

	<u>CEP Freshmen</u>	<u>Control Freshmen</u>	<u>All Freshmen</u>
Number initially enrolling (Fall 1970)	96	68	2635
Number re-enrolling (Fall 1971)	75	41	1730
Retention Rate	78%	60%	66%

dropped out during their first year of college have been encouraged by the program to pursue their second year of academic study.

Conversely, if the 78 percent CEP retention rate is projected to the control group then it could be anticipated that an additional 12 members of this group would have re-enrolled in the Fall of 1971. Furthermore, applying the CEP rate to all Freshmen reveals that 325 additional students might have entered their sophomore year of college if they had been able to take advantage of the services offered by the College Enrichment Program.

Table 4 shows a comparison of the retention rates of the 1969 CEP freshmen and all 1969 freshmen.

In this case, the CEP retention rate was 40 percent greater than that of all freshmen. These findings support the premise that extensive help for disadvantaged students at the beginning of their college careers and special follow-up counseling and tutoring services can keep a significantly greater proportion of them actively pursuing a college degree.



TABLE 4.  
Retention Rate of 1969 CEP Students  
Compared With All 1969 Students

	CEP Freshmen	All Freshmen
Number initially enrolled (Fall 1969)	45	2448
Number re-enrolling (Fall 1971)	32	1236
Retention Rate	71%	51%

#### Grade Point Average

A student's academic performance is measured by his grade point average (GPA). At UNM, grade points are distributed as follows: "A" = 4.0, "B" = 3.0, "C" = 2.0, "D" = 1.0, and "F" = 0.0.

Table 5 presents the mean grade point averages of the 1970 CEP group, the control group, and all 1970 freshmen. It does not include the grade point averages of the students at Highlands University, which is organized on a quarter term basis. The average GPA's for these students were as follows: first term: 2.90; second term: 2.85; and third term: 2.65.

TABLE 5.  
Mean Grade Point Averages of 1970 CEP Group,  
Control Group, and 1970 Freshmen

	Semester I	Semester II
CEP Group	2.13	2.44
Control Group	2.01	2.32
All Freshmen	2.39	2.60

Based on the results of the American College Tests administered before college entry, the control group (with a mean ACT percentile score of 44.24) appeared to be better prepared for college than the CEP group (with an ACT mean of 33.58). Thus, the control group might have been expected to attain a higher mean grade point average. This, however, was not the case. As shown in Table 5, the CEP group attained higher grade point averages than the control group both semesters. However, both groups had lower averages than the freshman class as a whole.

Even though the control group had significantly higher ACT percentile scores than the CEP group, it did not have a higher mean grade point average. This finding indicates that CEP may be helpful in securing higher grades.

It is interesting to note that even though the CEP group grade point average was lower than that of all freshmen, a larger proportion of CEP students were retained. This finding indicates that CEP is indeed achieving its immediate objective--retention of CEP students in college.

Table 6 shows the grade point average distribution of the CEP students enrolled at UNM (the CEP students enrolled at Highlands University, which is on a quarter term academic calendar, are excluded). Note that freshmen at UNM are allowed a GPA as low as 1.40 before being placed on probation.

The data reveal that a larger proportion of CEP students received passing grade point averages than the control group for both semesters I and II (75.6 percent vs. 70.6 percent; and 94.7 percent vs. 83.3 percent).

TABLE 6.  
Grade Point Average Distribution

<u>SEMESTER I</u>				
	<u>CEP Group</u>		<u>Control Group</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
3.00 - 4.00	18	20.0	13	19.1
2.00 - 2.99	42	46.7	29	42.7
1.40 - 1.99	8	8.9	6	8.8
1.39 and below (failing)	<u>22</u>	<u>24.4</u>	<u>20</u>	<u>29.4</u>
TOTAL	90	100.0	68	100.0

<u>SEMESTER II</u>				
	<u>CEP Group</u>		<u>Control Group</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
3.00 - 4.00	20	26.7	15	27.8
2.00 - 2.99	39	52.0	23	42.6
1.40 - 1.99	12	16.0	7	12.9
1.39 and below (failing)	<u>4</u>	<u>5.3</u>	<u>9</u>	<u>16.7</u>
TOTAL	75	100.0	54	100.0

The higher retention rate of the CEP group may to a large degree be due to the fact that since fewer CEP students are being placed on probation, fewer are being suspended.

#### Assessment of Reading Skills

Reading plays an important role in academic and professional success and consequently was focused upon in the 1970-71 College Enrichment Program when CEP students were involved in an intensive eight-week summer reading program. In order to assess the immediate effect of this program and to also allow for measurement of any long-term changes in reading skills, three assessments of the students' reading abilities were made: Test I at the beginning of the reading program, Test II immediately after completion of the program, and Test III at the end of the academic year.

Forms A and B of the Nelson-Denny Reading Test were used to measure reading skills. The Nelson-Denny is a widely used standardized test yielding scores on vocabulary, comprehension, and reading rate for those being examined.<sup>6</sup> Of the 96 CEP students potentially capable of being administered Tests I and II, 95 were given Test I and 77 of these 95 received Test II. For the 75 potentially eligible to receive Test III, only 31 were actually examined. Due to the differing numbers of students being examined on the three testing occasions, two separate analyses of the test data were made--one for the group of 77 who received both Tests I and II and one for the group of 31 who received all three tests.

The mean raw scores and the percentile ranks of these means on Tests I and II for the group of 77 are shown in Table 7.

TABLE 7.  
Mean Raw and Percentile Scores on Nelson-Denny  
Tests I and II for the Group of 77

	<u>TEST I*</u>		<u>TEST II**</u>	
	<u>Mean</u> <u>Raw Score</u>	<u>Percentile****</u>	<u>Mean</u> <u>Raw Score</u>	<u>Percentile****</u>
Vocabulary	27.8	54	35.6	65
Comprehension	33.5	40	36.9	51
Reading Rate (words per min.)	272.5	58	596.7	99

\* Test I administered at the beginning of the 1970 summer reading course.

\*\* Test II administered at the end of the 1970 summer reading course.

\*\*\* Percentile ranks are those of the mean raw scores reported in the preceding column. They are based on 12th grade norms.

Statistical analysis of these results indicated that significant gains were made between Test I and Test II in each of the reading

<sup>6</sup> Buross, Oscar Krisen (ed.), The Fifth Mental Measurements Yearbook (Highland Park, New Jersey: The Gryphon Press, 1959), pp. 781-3.

skill areas (i.e., in each of the reading skill areas of vocabulary, comprehension, and reading rate, Test II scores were significantly greater than Test I scores). Note that the percentile ranks of all mean raw scores on Test II were beyond the 50th percentile, with a maximum percentile score of 99 being registered for the group reading rate. A comparatively high group percentile rank of 65 was made on the vocabulary component of the test. The weakest area was comprehension, where the group percentile rank was only 51. This suggests that although the group exhibits a tremendous "absolute" reading rate, reading skill is not as effective as it might be due to the relatively small comprehension ability.

The mean raw scores and the percentile ranks of these means on Tests I, II, and III for the group of 31 are shown in Table 8. Figures 1, 2, and 3 depict the changes in raw vocabulary, comprehension, and reading rate subscale means over the three tests.

TABLE 8.  
Mean Raw and Percentile Scores on Nelson-Denny Tests I, II,  
and III for the Group of 31

	<u>TEST I*</u>		<u>TEST II**</u>		<u>TEST III***</u>	
	<u>Mean</u> <u>Raw Score</u>	<u>Per-****</u> <u>centile</u>	<u>Mean</u> <u>Raw Score</u>	<u>Per-</u> <u>centile</u>	<u>Mean</u> <u>Raw Score</u>	<u>Per-</u> <u>centile</u>
Vocabulary	26.6	48	34.3	62	40.7	64
Comprehension	33.4	40	35.2	47	37.6	39
Reading Rate (words per min.)	242.0	47	581.8	99	456.7	96

\* Test I administered at the beginning of the 1970 summer program.

\*\* Test II administered at the end of the 1970 summer program.

\*\*\* Test III administered at the end of the 1970-71 academic year.

\*\*\*\* Percentile ranks are those of the mean raw scores reported in the preceding column. Test I and II percentiles are based on 12th grade norms and Test III on 13th grade norms.

Figure 1.  
Changes in Mean Vocabulary Scores  
on the Nelson-Denny Reading Test

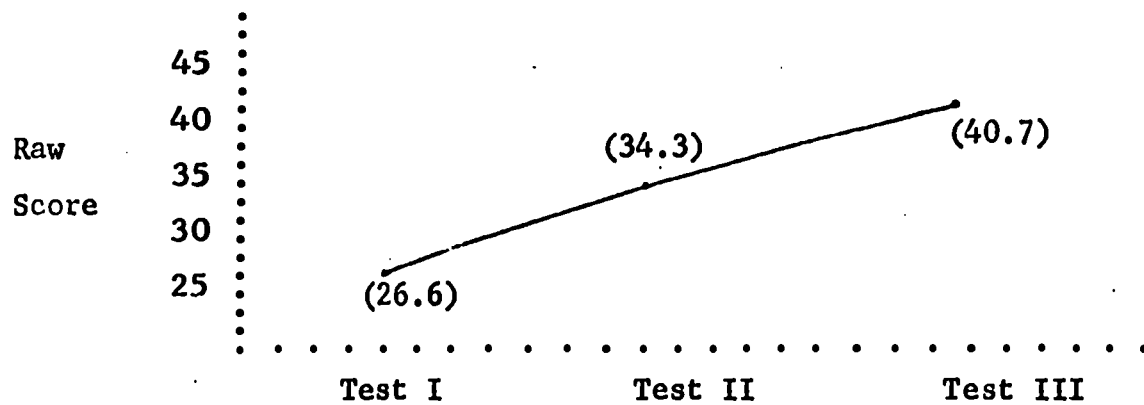


Figure 2.  
Changes in Mean Comprehension Scores  
on the Nelson-Denny Reading Test

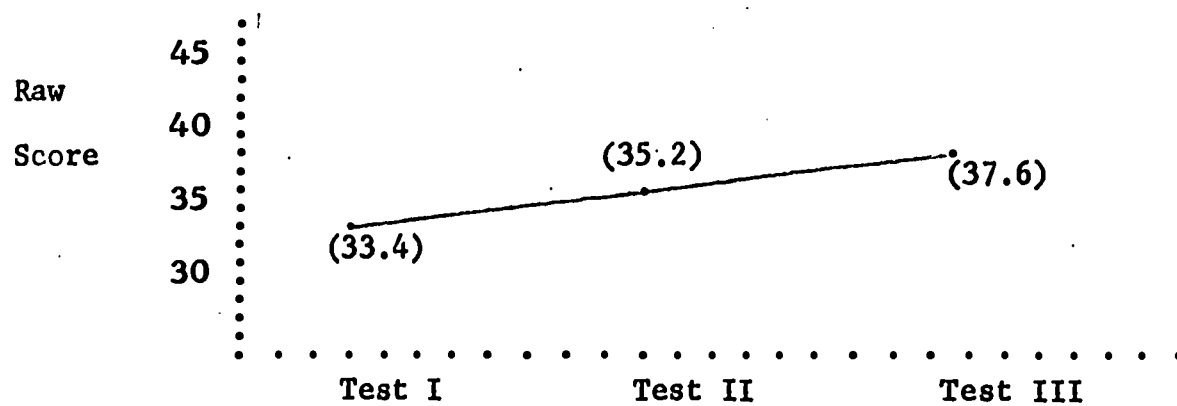
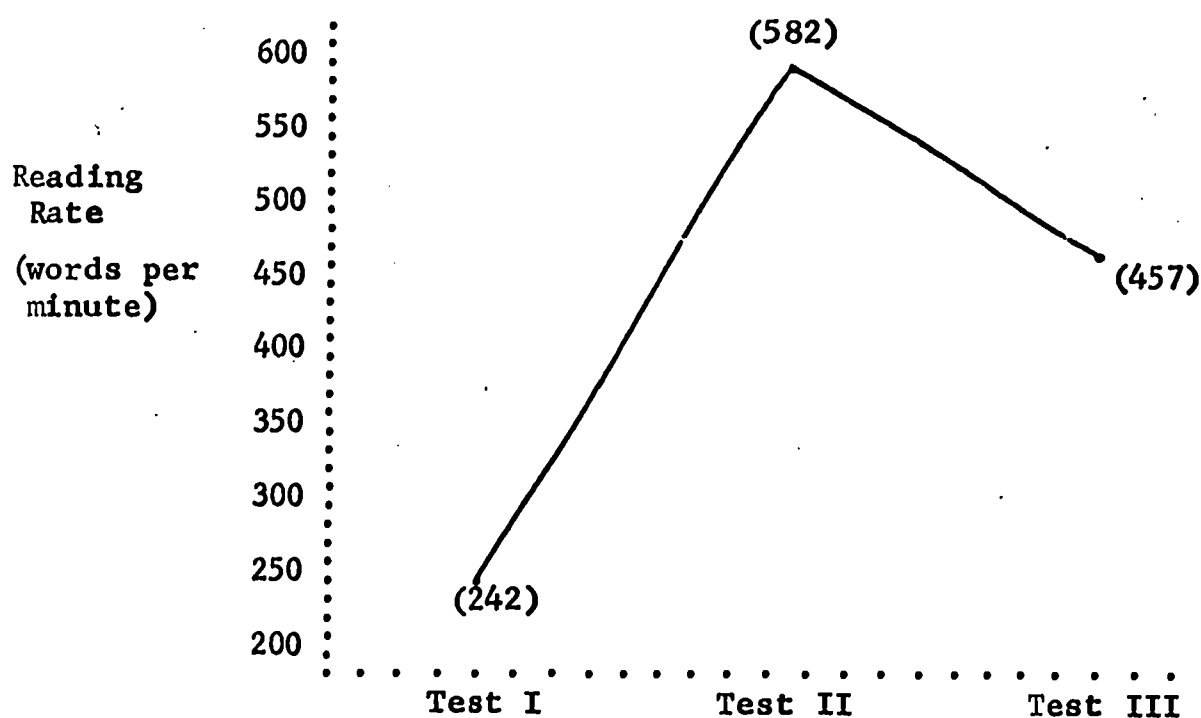


Figure 3.  
Changes in Mean Reading Rate Scores  
on the Nelson-Denny Reading Test



Before analysis of the test scores reported in Table 8 was accomplished, a comparison was made to determine if the group of 31 could be considered "equivalent" to the remainder of the 77 potentially capable of receiving Test III but actually not being tested. This was done by comparing the Test I and II results of the group of 31 and the 41 of the 77 who took the first two tests but not the third. Although this comparison raised considerable doubt as to the "representativeness" of the group of 31 (particularly in regard to reading rate), an analysis of the changes in scores across all three tests was made for the group. The findings of this analysis were:

1. There was a significant gain on vocabulary test scores (Figure 1) over the course of the summer and a retention of this gain over the academic year.
2. No significant gains in comprehension scores (Figure 2) appeared between any two testing levels.

3. Reading rate (Figure 3) showed a sharp increase at the end of the summer program as a result of the reading course. However, by the end of the academic year it had fallen off somewhat but nevertheless remained significantly greater than the initial reading rate indicated by Test I.

It can be noted that the above results are in agreement with the analysis made on the group of 77 who received both Tests I and II except in the case of changes in mean comprehension scores (recall that a significant gain was registered for the group of 77 in this area). The finding of no significant gain for the group of 31 probably stems from the smaller number of cases being included in the testing sample and possible introduction of bias as a result of the nature of the group's selection in testing.

#### Assessment of Study Habits and Attitudes

The fact that some students with apparently sufficient scholastic aptitude do very poorly in school has presented a perplexing challenge to many educators. The most plausible explanation of this phenomenon seems to be that this underachieving group lacks sufficient motivation or does not possess the appropriate study habits and attitudes to enable them to show greater academic achievement. Since incoming CEP students apparently conform to the characteristics of underachievers,<sup>7</sup> an assessment of the changes in study habits and attitudes was made for those 1970 CEP students retained in the program. This was done by comparing the study habits and attitudes of students at the beginning of the summer program (Test I), at the end of the summer program (Test II), and at the end of the 1970-71 academic year (Test III).

The Brown-Holtzman Survey of Study Habits and Attitudes (SSHA) was used to determine the motivation of CEP students for study and attitude toward academic work. The SSHA is designed to identify

<sup>7</sup> Richards, James M. and Sandra W. Lutz, "Predicting Student Accomplishment in College from the ACT Assessment," Journal of Educational Measurement, vol. 5, no. 1, Spring 1968, pp. 17-29.



students whose study habits and attitudes differ from those of students who earn high grades.<sup>8</sup> As was the case in the administration of the Nelson-Denny Reading Test, on each of the three SSHA testing occasions not all potentially eligible CEP students were surveyed--95 of the possible 96 received Test I, 79 of these 95 received Test II, and only 31 of the retained group of 77 received Test III. Therefore, similar to the procedure used in the assessment of reading skills, separate analyses were made for the group of 79 who received both SSHA Tests I and II and the group of 31 who received all three tests.

Mean raw scores and the percentile ranks of these means on Tests I and II for the group of 79 are shown in Table 9. Statistical analysis of these data indicated that no significant differences existed between Test I and Test II scores for either study habits or study attitudes.

TABLE 9.  
Mean Raw and Percentile SSHA Scores  
For the Group of 79 on Tests I and II

	<u>TEST I*</u>		<u>TEST II**</u>	
	Mean <u>Raw Score</u>	<u>Percentile***</u>	Mean <u>Raw Score</u>	<u>Percentile***</u>
Study Habits	42.3	36	44.8	40
Study Attitudes	51.3	23	50.0	20

\* Test I administered at the beginning of the 1970 summer program.

\*\* Test II administered at the end of the 1970 summer program.

\*\*\* Percentile ranks are those of the mean raw scores reported in the preceding column. They are in reference to a high school senior/college freshman norm group.

Note that the percentile ranks of both study habits and attitudes, and especially those of study attitudes, are well below the 50th percentile. This indicates that incoming CEP students can be diagnosed

<sup>8</sup>"Survey of Study Habits and Attitudes," Journal of Educational Measurement, vol. 6, no. 2, Summer 1969, pp. 120-2.

as having different study habits than those possessed by high achieving students and supports the premise that they represent a "high risk" in terms of potential academic achievement.

Table 10 shows the mean raw scores and the percentile ranks of these means on Tests I, II, and III for the group of 31 who received each of these tests. In order to determine if the group of 31 could be considered "equivalent" to the remainder of the 77 potentially capable of receiving Test III but not actually being tested, a preliminary comparison of the Test I and II results of the 31 was made with those of the 77 who took the first two tests but not the third. Findings supported the hypotheses that the two groups were equal in terms of variability of scoring and mean raw scores.

TABLE 10.  
Mean Raw and Percentile SSHA Scores  
For the Group of 31 on Tests I, II, and III

	TEST I*		TEST II**		TEST III***	
	Mean Raw Score	Per-**** centile	Mean Raw Score	Per-**** centile	Mean Raw Score	Per-**** centile
Study Habits	41.6	33	42.1	36	47.7	47
Study Attitudes	48.8	19	50.1	20	51.2	22

\* Test I administered at the beginning of the 1970 summer program.

\*\* Test II administered at the end of the 1970 summer program.

\*\*\* Test III administered at the end of the 1970-71 academic year.

\*\*\*\* Percentile ranks are those of the mean raw scores reported in the preceding column. Each is in reference to a high school senior/college freshman norm group.

The follow-up analysis of the changes in study habit scores for the group of 31 across all three tests showed that there was a significant gain over the course of the academic year (from Tests I and II to III) although no significant gain appeared during the summer (from Test I to Test II). This suggests that the formation of habits more closely resembling those of high achieving students evolved somewhat gradually for CEP students. It is possible that the summer program was

simply too limited in terms of time for any significant changes in habits to have occurred. Or, since the summer program might be considered much less of an academic dose than CEP students received during the succeeding nine months of full-time academic work, it may have lacked the sufficient motivating force for initiating study habit changes. The finding that the study habit percentile rank for the group did not exceed the 50th percentile is not surprising when one considers that the academic achievement of CEP students, with a mean grade point average somewhat above a "C", indicates that differences in study habits from students receiving high grades are expected.

The analysis of changes in study attitudes showed no significant gains between any two testing levels. The percentile ranks for each mean study attitude score on all three tests was very low (about the 20th percentile). This finding, in conjunction with the results drawn from the analysis of study habit scores, leads to the conclusion that although CEP students developed favorable "overt" behaviors in regard to studying, their inner psychological feelings remained unchanged and quite different from high achieving students.

#### Student Assessment of the Program

Another index used in evaluating the program was the students' own assessment of its value to them as individuals. Two questionnaires were given to the students during the year. The first was presented at the end of the first semester and was concerned mainly with the summer program, but also included several questions about Semester I. The second questionnaire was given at the end of Semester II and was concerned with the program as a whole. The students filled out the questionnaires anonymously and were encouraged to make comments in addition to their "yes" or "no" answers.

On the whole, the students appeared to be quite open in their comments. A sampling of some of the questions and the percentage of favorable responses given may indicate the response trend and the

general attitudes of the CEP participants.

Ninety-six percent said the program assisted them in their freshman year and that the summer program had been helpful. One hundred percent said their families approved their participation. In the first questionnaire, 44 percent said they would not have been able to start college when they did if it had not been for the CEP. When this question was asked again at the end of the year, response on this item had risen to 56 percent. Staff members believe that the discrepancy might be attributable to the students' initial reluctance to admit that they would not have gone to college on their own.

In addition, eighty-nine percent said the program enabled them to make a better social adjustment to school. Eighty-two percent said they used the counseling services, and 78 percent said they used the tutoring services. Eighty-three percent indicated they would be willing to assist new students in the program during the next academic year.

In their written comments, many students noted that the program bolstered their confidence as incoming freshmen. They cited the orientation to college life during the summer phase and being able to talk to counselors who understood the University system as major reasons for this. Others found the tutoring sessions, assistance with registration and class schedules, and summer instruction (particularly in English) the most helpful services of the program.

In criticizing the program, several students said the weekly meetings were too frequent and offered little of value. They suggested that meetings be more rigidly structured and held less often. Some indicated they would like more social gatherings. Other comments were directed toward improving the content of the summer academic courses and the communication of counselors and tutors with students. Their criticism was considered in planning the 1971-72 program.

### Survey of CEP Influence on College Entrance

Universities have traditionally not made deliberate efforts to recruit low-income students. However, several universities are now taking major steps in this direction. The University of New Mexico, through the College Enrichment Program, has deliberately been recruiting a limited number of low-income students during the last three years. A telephone interview was conducted in the early fall of 1970 to determine the influence of CEP recruiting efforts in stimulating other eligible low-income high school students in the target area to consider college. Twenty-two of the 25 local counselor or high school principal CEP liaison persons were interviewed. A semi-structured interview schedule was used to assess the overall impact of the CEP on the recruiting of low-income students other than those ultimately selected for the program.

Results of the study strongly suggest that the CEP recruiting effort, in and of itself, has had a significant impact on recruiting students in the target area. Eighteen of the 22 counselors or principals indicated they felt CEP's interest in soliciting candidates for the program was a major factor in influencing other students in their schools to attend college.

An attempt was also made to interview the high school students who had originally been candidates for the College Enrichment Program, but who had not joined the program either because they had refused the invitation to enter or were not asked to participate. Only 37 of these candidates were available to be interviewed by telephone. Of these, slightly less than half indicated that the influence of the College Enrichment Program was a major factor in their applying for college entrance. However, only eight indicated they definitely would not have applied for entrance if they had not been contacted by CEP representatives. Slightly less than half also indicated they could not have seriously considered entering college or university without financial assistance. These results are in

agreement with the findings of the counselor/principal interview regarding the role CEP representatives have played in stimulating students in the target schools to consider entering college.

Evidently, the combination of awareness that a university is interested in them, has representatives who believe they can successfully compete, and has made arrangements to offer financial help, is a powerful motivating factor in attracting candidates from low-income families to consider college entrance. Comments made by some of the counselors and principals in the telephone interview revealed that some students expressed concern (to the counselor or principal) that they would be "labeled" as poor, militant, etc., by participating in the College Enrichment Program. Some counselors recommended that recruitment and informational efforts for the Program begin at least in the junior year to enable students to plan for, and take advantage of the opportunity of entering the Program.

### C. SUMMARY OF RESULTS

Findings of the evaluative research reported in the preceding section may be summarized as follows:

1. Retention rate for 1969 CEP students was found to be 40% greater than that of all 1969 UNM freshmen.

For the 1970 CEP group retention was 18% greater than that of all 1970 freshmen and 30% higher than that of the matched control group.

2. The grade point average of 1970 CEP students was higher than that of the control group, but slightly below that of all freshmen.

In regard to grade point average distribution, a larger proportion of CEP students than control students received passing grades for both fall and spring semesters.

3. CEP students showed significant gains over the course of the 1970 summer program in each of the reading skill areas of vocabulary, comprehension, and reading rate as measured by the Nelson-Denny Reading Test. A comparatively high group percentile rank of 65 was recorded in vocabulary, and a maximum percentile rank of 99 was registered for the group reading rate. However, a comprehension percentile of 51 indicated that the "effective" reading rate of CEP students was not as high as might be indicated by the 99 percentile ranking.

4. CEP students showed a significant increase in study habits (as measured by the Brown-Holtzman Survey of Study Habits and Attitudes) during their freshman year, although no changes were noted over the course of the summer program.

In terms of study attitudes, the group showed a consistent low scoring trend for the summer and following academic year. Hence, the conclusion was made that CEP students developed favorable "overt" study behaviors during their freshman year although their feelings or attitudes toward academic work remained unchanged and quite different from high achieving students.



5. In a survey of 1970 CEP students, 96% indicated that the College Enrichment Program had been of major benefit to them and about 50% stated that they would not have enrolled in college except for the recruitment effort by the CEP. In addition, 89% said the program had assisted them in making a better social adjustment to college life. The survey also revealed that 82% had utilized the CEP's counseling services and 78% had used the available tutoring services established by the CEP.

6. Eighty-two percent of the principals or counselors from 22 of the 25 high schools in the target area from which 1970 CEP students were recruited indicated in a telephone interview that they felt the CEP recruiting effort in their school had been a major factor in influencing other disadvantaged students to enroll in college.



#### IV. SUCCESS IN ACHIEVING PROGRAM GOALS

##### A. IMMEDIATE OBJECTIVE

To retain CEP students in college.

The College Enrichment Program is meeting this objective successfully. A significantly higher percentage of CEP students is staying in school, in comparison with their disadvantaged peers on campus and the rest of the freshman class.

Unquestionably, CEP has had a significant impact on the ability and willingness of its disadvantaged students to continue their academic work.

##### B. LONG-RANGE GOALS

Goal 1      To increase the proportion of students from disadvantaged backgrounds at the University of New Mexico.

In response to questionnaires assessing the value of the program, a large percentage of CEP students stated that they would not have enrolled in college if they had not been recruited by CEP. This alone indicates that CEP is bringing a larger number of disadvantaged students to the campus than would have come if the program were not offered.

In addition, the telephone survey of school counselors and principals in the target area indicates that the disadvantaged students' awareness that a university is interested in them, has representatives who believe such students can successfully compete, and has made arrangements to offer them financial help, is a powerful motivating factor in attracting them to the campus. Survey respondents generally felt that CEP was opening up a substantial reservoir of untapped talent. Responses by the students to the telephone survey tended to confirm those of the counselors. From the counselor and student responses, it would appear that knowledge

of the availability of CEP-type services (particularly assistance in obtaining financial aid) encourages disadvantaged students to enter college.

- Goals 2 and 3      To assist disadvantaged students in successfully completing their undergraduate and graduate programs.
- To increase the number of students from disadvantaged backgrounds entering the professions.

It will be two years before the first CEP group attains four years of college experience. It is hoped that many of the students will complete their bachelor's degrees at the end of the four-year period and that some of them will then enter graduate or professional schools. Of course, success in meeting these goals cannot be evaluated at this time.

However, if the retention rate can be taken as an indicator of college success, it would appear that a significant proportion will achieve at least an undergraduate degree. Also, students are counseled on their career choices, monitored on their progress toward a degree, and encouraged to consider entering graduate and professional schools. Every effort will be made to assist them in obtaining information about graduate-level programs and in applying for admission to the programs of their choice. Other follow-up assistance will be provided on an individual basis (letters of recommendation, applications for financial aid, etc.).

- Goal 4            To assist the University in examining its attitudes, methods, and practices affecting disadvantaged students in such areas as recruitment, admission, financial aid, retention, counseling, tutoring, student personnel services, and curriculum.

The CEP staff is continually working toward this goal and has helped bring about a number of such policy changes at the University. CEP was a proponent of three recent major policy changes that have a significant impact on disadvantaged students. These changes, actively supported by other agencies as well, are discussed below.

Admission Policy. In the past, a resident student applying for admission to the University has been required to have a 2.0 grade average for his high school work and a specified number of credits in English, math, science, languages, government, and other subjects.

A more liberal policy regarding entrance requirements has been implemented and specifies only a high school diploma and a 2.0 high school grade average as necessary for admission. This means that students will no longer be discouraged from applying for entrance because of deficiencies in certain subject areas.

Withdrawal Policy. One policy that has frequently worked against disadvantaged students, most of whom are not knowledgeable in academic policies, has been that regarding withdrawal from a course.

The time allowed for a student to withdraw from a course in which he is failing is very critical. If he is not aware of the time limit within which he may withdraw from a failing course with a "W" (Withdrawal) and withdraws from a failing course after the time limit, he must withdraw with a grade of "F" rather than a "W" which, of course, adversely affects his cumulative grade average.

Under the previous withdrawal policy, only four weeks were allowed for a student who was failing a course to withdraw with a "W." Often, the four-week time limit had elapsed before a student realized that he should withdraw from a course (many times, he had not received grades for any work performed in a course until after the first four weeks had passed). Since the disadvantaged student is usually the least likely to be knowledgeable about these kinds of policies, he is the most likely to suffer in the form of a lower grade point average.

Recently, the withdrawal period was extended from four weeks to 12 weeks. This extension for withdrawing from a course should reduce the number of disadvantaged students who are adversely affected by failure to withdraw in time.

Credit Grade Option Plan. A student is permitted under this newly adopted policy to enroll in one course each semester under this optional grading plan. Under this plan a student does not receive an "F" grade if he fails a course. For example, if, at any time during the semester, a student finds himself in danger of failing a course, he may request the "credit grade option" grading plan for that course. If he does fail the course, he will receive a "W" and not a grade of "F," which would of course reduce his grade point average.

## V. DIRECTIONS FOR THE 1971-72 PROGRAM

As a result of CEP's experiences with disadvantaged students over the past two years, numerous changes have been instituted in the program this year to more adequately meet the students' needs. Much of this year's program (which began last summer with an orientation/preparation phase) is similar to last year's. To avoid duplicating other material in this report, the program for 1971-72 will be discussed primarily in terms of how it differs from the plan followed last year.

### A. SUMMER PHASE

In the past, many students who exhibited high potential declined to participate in the CEP because it meant they could not work during the summer to earn money for college. Many of those who did participate indicated it was a hardship for them not to be able to work at least part of the summer. Also, the CEP staff noticed in the earlier programs that the group's enthusiasm and performance tended to peak at about the sixth week and then decline. For these reasons, the 1971 summer phase was divided into two four-week programs. Students were allowed to choose the one they would like to attend, but the group split naturally at about 50 for each session.

#### Academic Component

The major element of the academic component of the program was preparatory first-semester freshman English (grammar and writing skills) and second-semester freshman English interpretations of literature. Credit was not given in these courses. It was felt that the purpose of the summer phase was to prepare the students for college (especially for their required English courses), rather than to give them a start on their college credits. Furthermore, the four-week length of the program did not fulfill the minimum eight-week length required for college credit.

Remedial mathematics was taught to each student at his own level (as determined by achievement tests). Although few students indicated an interest in math, the staff felt that the students should have some instruction in this area in order to give them confidence that they could succeed at math, and also to prepare them in the event that they should later choose an academic course that required math. Also, most graduate programs require some math and statistics and students who want to go beyond the bachelor's degree would be required to take some courses at the undergraduate level.

The reading skills course as such was eliminated. However, reading skills instruction was incorporated in the two English courses. Instruction was also given in the use of the library. Instruction was also given in the inductive method of reasoning. Students were also required to participate in arts and crafts and in recreational activities twice a week to give them a break from their studies and help them develop hobbies that might continue through their college careers. Lectures on cultural awareness and academic field selection were also presented. Students spent the remainder of their time in required tutoring sessions in math and English.

#### Social and Cultural Component

The change to a four-week program also meant that the number of cultural and social activities had to be curtailed somewhat. Most of these activities were optional and were held on the weekends to encourage students to stay and participate rather than go home for the weekend.

Students were given an opportunity to attend a play and a musical at UNM's Popejoy Hall. Attendance at a Santa Fe Opera (with prior discussion of the opera) was required. Attendance of a professional baseball game at the Albuquerque Stadium was optional. The students also rode the tram and chairlift at the Sandia Peak Ski Area and visited the State Capitol in Santa Fe. Each of the two

sessions began with a dinner (with students being welcomed by URM President Ferrel Heady) and ended with a picnic at the home of the CEP director.

## B. ACADEMIC YEAR PHASE

### Counseling Services

The mainstays of the academic year program are still the counseling and tutorial services. However, this year, each student is assigned to a counselor (although all staff members are available to a student if needed). It is the counselor's responsibility to maintain contact with that student throughout the academic year. The counselor assists the student in a number of ways: academic advising (selection of classes), recommending tutoring in certain areas, contacting professors as necessary, contacting administrative offices as necessary, helping the student obtain part-time and summer employment, and helping the student obtain financial aid through grants, loans, and scholarships. The counselor supplements this personal contact with letters, memos, and telephone calls.

Career counseling is being intensified this year as the earlier groups of students are progressing in their academic programs. The third-year students will be in the fields of their choice by the end of the present academic year, and, hopefully, many of them will be giving some consideration to graduate and professional schools. Some of these students have already transferred from the University College into the College of Arts and Sciences, the College of Education, College of Pharmacy, College of Business and Administrative Sciences, College of Nursing, and the College of Fine Arts. Second-year students will begin to choose their colleges by the end of the second semester of this year.

In addition to maintaining contact with CEP students in college, the staff is attempting to maintain some contact with those who have



dropped out or who have been suspended. The CEP staff believes it is important that these students know that a particular University office is still interested in them (especially since many of them have indicated they want to return to the University at a later time). Letters have been mailed to these students asking them why they dropped out of college, what their plans are for the future, and other questions. Contact will be maintained with them by letter questionnaires over the next several years, if possible. Not only will this contact encourage them to consider returning to the University, it will also provide valuable information for use in evaluating the success of the program.

#### Tutoring Services

Tutoring will be made available in all areas required by the students. Since many of the students do not recognize the need for tutoring, counselors will keep up to date on each student's progress in each class so that tutoring can be initiated before the student is in trouble.

At present, about 15 part-time tutors (upper-division students and graduate students) are providing instruction in their fields. The highest demand among CEP students appears to be for tutoring in mathematics. Tutoring classes meet at pre-arranged times. Arrangements are made between tutor and students in cases involving schedule conflicts.

Twenty-six of the current freshmen CEP students are enrolled in special first-semester English classes offered by the University College. These classes are smaller than the regular classes and meet five days a week instead of three.

#### Group Meetings

Group meetings between students and staff will be held monthly, to discuss the program and assess its progress. The staff felt that



interest in the meetings dropped off last year because they were too frequent. However, the CEP freshman students will have monthly dinner meetings to maintain the group feeling nurtured during the summer program. The CEP staff believes that the group contact will help avert the loneliness that many of the students experience on a campus with such a large student body.

#### Social and Cultural Activities

As in the past, CEP will continue to encourage its students to attend on-campus cultural activities.

#### Cooperation with Other Programs

Program efficiency and services should increase through coordinated effort with the new Special Student Services Program. Essentially, this program will expand counseling and tutoring services to other disadvantaged students.

In addition, CEP will continue to maintain liaison with other programs and projects on the UNM campus that affect disadvantaged students and with programs similar to CEP that are being operated at (or proposed by) other universities in the State and in the Southwest.

### C. FUTURE DIRECTIONS

It will be two to three years before the success of CEP in helping students attain undergraduate degrees and moving them toward graduate and professional programs can be assessed. Initial experience with the program indicates that CEP is moving toward its long-range goals. Career orientation and emphasis on professional schools will be intensified this year and in succeeding years to try to fulfill the program's long-range objectives. In addition, the CEP staff will try to devise

methods for measuring changes in aspiration level of students to see how many are interested in postgraduate education when they begin the program and how many pursue such education after they graduate.

At this time, CEP believes the program should be continued at approximately the same level as in the past. Alterations in program design should continue as indicated by student needs and evaluation of each new phase. Each successive year of experience provides a more solid foundation for assessing the value of the program to disadvantaged students and ultimately to the citizens of the State. Also, each year of experience provides more valid data for planning the structure of the next year's program (and perhaps ultimately for the structure of a "model program").

However, one must remember that CEP is comprised of individuals--the success of each individual student in attaining a college degree is a measure of the success of the program. The program seems to be succeeding primarily because of the attention it pays to individual students. It must not grow so large as to lose sight of their problems--nor must its supportive services be allowed to diminish to the point where they are no longer of value.

## APPENDICES

Appendix A  
1969 CEP PARTICIPANTS (45) BY COUNTIES AND HIGH SCHOOLS

	<u>Total</u>	<u>Male</u>	<u>Female</u>
<u>Bernalillo County (14)</u>			
Albuquerque High School	5	1	4
Highland High School	1	1	
Menaul High School	2	2	
Rio Grande High School	2	1	1
Valley High School	1		1
West Mesa High School	3	2	1
<u>Mora County (3)</u>			
Mora High School	2	1	1
Wagon Mound High School	1	1	
<u>Rio Arriba County (7)</u>			
Coronado High School (Jemez Mountain)	2	2	
Escalante High School (Chama Valley)	2	2	
Espanola High School	3	3	
<u>Sandoval County (6)</u>			
Bernalillo High School	3	3	
Cuba High School	3	3	
<u>San Miguel County (3)</u>			
Pecos High School	1	1	
Robertson High School (Las Vegas City)	1	1	
West Las Vegas High School	1	1	
<u>Taos County (7)</u>			
Mesa Vista High School (Ojo Caliente)	1	1	
Penasco High School	3	1	2
Questa High School	1	1	
Taos High School	2	1	1
<u>Valencia County (5)</u>			
Laguna-Acoma High School (Grants)	<u>5</u>	<u>3</u>	<u>2</u>
TOTALS	45	32	13

Appendix B

## 1970 CEP PARTICIPANTS (96) BY COUNTIES AND HIGH SCHOOLS

	<u>Total</u>	<u>Male</u>	<u>Female</u>
<u>Bernalillo County (47)</u>			
Albuquerque High School	18	6	12
Highland High School	3	3	
Manzano High School	2	1	1
Menaul High School	4	3	1
Rio Grande High School	7	4	3
Valley High School	5	1	4
West Mesa High School	8	6	2
<u>Mora County (3)</u>			
Mora High School	1	1	
Wagon Mound High School	2	1	1
<u>Rio Arriba County (7)</u>			
Coronado High School (Jemez Mountain)	2	1	1
Escalante High School (Chama Valley)	3	1	2
Espanola High School	2	2	
<u>Sandoval County (2)</u>			
Bernalillo High School	1		1
Cuba High School	1	1	
<u>San Miguel County (18)</u>			
Pecos High School	1		1
Robertson High School (Las Vegas City)	1		1
West Las Vegas High School	13	9	4
<u>Santa Fe County (1)</u>			
Santa Fe Senior High School	1	1	
<u>Taos County (16)</u>			
Mesa Vista High School (Ojo Caliente)	6	1	5
Penasco High School	3	1	2
Taos High School	7	6	1
<u>Valencia County (2)</u>			
Laguna-Acoma High School (Grants)	2		2
TOTALS	96	49	47

Appendix C  
1971 CEP PARTICIPANTS (94) BY COUNTIES AND HIGH SCHOOLS

	<u>Total</u>	<u>Male</u>	<u>Female</u>
<u>Bernalillo County (16)</u>			
Albuquerque High School	8	5	3
Highland High School	3	1	2
Menaul High School	1	1	
Valley High School	1		1
West Mesa High School	3		3
<u>Chaves County (1)</u>			
New Mexico Military Institute	1	1	
<u>Lea County (2)</u>			
Hobbs High School	2		2
<u>McKinley County (1)</u>			
Ramah Navajo High School	1	1	
<u>Mora County (5)</u>			
Mora High School	5	3	2
<u>Rio Arriba County (18)</u>			
Coronado High School (Jemez Mountain)	2	2	
Escalante High School (Chama Valley)	9	5	4
Espanola High School	7	2	5
<u>Sandoval County (7)</u>			
Bernalillo High School	7	3	4
<u>San Miguel County (14)</u>			
Pecos High School	2	2	
Robertson High School (Las Vegas City)	5	1	4
West Las Vegas High School	7	3	4
<u>Santa Fe County (1)</u>			
Santa Fe High School	1		1
<u>Taos County (17)</u>			
Mesa Vista High School (Ojo Caliente)	4	2	2
Penasco High School	4	3	1
Questa High School	1		1
Taos High School	8	5	3
<u>Torrance County (6)</u>			
Encino High School	1		1
Estancia High School	1		1
Moriarty High School	3		3
Mountainair High School	1	1	
<u>Union County (1)</u>			
Clayton High School	1		1
<u>Valencia County (5)</u>			
Belen High School	2	1	1
Laguna-Acoma High School (Grants)	3		3
<b>TOTALS</b>	<b>94</b>	<b>42</b>	<b>52</b>

Appendix D

QUESTIONNAIRE ON COLLEGE ENRICHMENT PROGRAM  
(Administered End of Semester I, 1970-71)

Yes      No

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

1. Do you believe the Summer Component of the program was helpful to you? If YES, in what way? If NO, why not? \_\_\_\_\_
2. Do you believe that the summer's enrichment or extracurricular activities (trips, movies, plays, etc.) were of any value to you? If YES, in what way? If NO, why not? \_\_\_\_\_
3. Do you believe that participation in the summer program assisted you academically, that is, do you believe that it has enabled you to do better in school? If YES, in what way? If NO, why not? \_\_\_\_\_
4. Do you believe that your participation in the summer program has helped you make a better social adjustment to school? If YES, in what way? If NO, why not? \_\_\_\_\_
5. Did you utilize the tutorial services offered by the program last semester? If YES, why? If NO, why not? \_\_\_\_\_
6. Do you think the tutoring services were effective, that is, did these services help you improve in those academic areas that you needed help with? If NO, why not? \_\_\_\_\_
7. Were there enough tutors available for you to receive the help you needed? \_\_\_\_\_
8. Did you utilize the counseling services offered by the program last semester? If YES, why? If NO, why not? \_\_\_\_\_
9. Do you think the counseling services were effective, that is, did these services provide the help that you needed? If your answer is NO, in what ways do you think the counseling services were deficient? \_\_\_\_\_
10. Were there enough counselors available for you to receive help if you needed it, WHEN you needed it? Explain if you want to. \_\_\_\_\_
11. Were the courses offered to you during the summer useful to you during this past semester, that is, in your opinion, did they help prepare you to achieve at a higher level in your freshman courses than you might have without them? Explain if you want to. \_\_\_\_\_
12. What courses were the most helpful? \_\_\_\_\_
13. Which courses were the least helpful? \_\_\_\_\_
14. Did you receive any medical assistance last summer? \_\_\_\_\_
15. Would you have been able to afford this assistance without the help of the program? \_\_\_\_\_

Questionnaire, Administered End of Semester I, 1970-71, cont'd.

- |   | Yes   | No    |
|---|-------|-------|
| 16. If you did receive medical assistance, what type was it?  |       |       |
| 17. Did the program meet all your expectations, that is, did it do for you what you thought it would?   | _____ | _____ |
| 18. We are hoping to modify next summer's program in an attempt to make it more effective and to meet the needs of the new students. What suggestions can you offer to help us achieve these goals? |       |       |
| 19. Do you believe it would have been possible for you to start college when you did if you were not selected for the College Enrichment Program?   | _____ | _____ |



## Appendix E

QUESTIONNAIRE ON COLLEGE ENRICHMENT PROGRAM  
(Administered End of Semester II, 1970-71)

	Yes	No
1. Do you believe that the Upward Bound Program was of assistance to you in your Freshman year? (Excluding financial considerations)	_____	_____
2. If the answer to the previous question was <u>yes</u> , what aspect of the program was the most helpful to you?		
3. What aspect of the program was the least helpful to you?		
4. Did your family favor your participation in this program?	_____	_____
5. Do you believe it would have been possible for you to start college when you did if you were not selected for the College Enrichment Program?	_____	_____
6. Do you believe that participation in this program has assisted you academically, that is, do you believe that it has enabled you to achieve at a higher level? If <u>yes</u> , how and in what way? If <u>no</u> , why not?	_____	_____
7. Do you believe that your participation in the program has helped you make a better social adjustment to school? If <u>yes</u> , how and in what way?	_____	_____
8. Were you refused admission to any other institution of higher learning? Which ones? For what reasons (if known)?	_____	_____
9. Were you accepted at any other institution(s) of higher learning? Which one(s)?	_____	_____
10. Do you believe that the education you are receiving is relevant to your needs and goals? If <u>yes</u> , how? If <u>no</u> , why not?	_____	_____
11. Have your educational and/or vocational goals changed since you have been in the program? If <u>yes</u> , in what way?	_____	_____
12. Do you believe that there was enough staff-student interaction during the year?	_____	_____
13. Did you get to meet frequently enough with the staff when you needed to?	_____	_____
14. Did you utilize the counseling services of the program? Was it helpful? If <u>yes</u> , how? If <u>no</u> , why not?	_____	_____
15. Did you utilize the tutoring services offered? Was it helpful? If <u>yes</u> , how? If <u>no</u> , why not?	_____	_____

Questionnaire, End of Semester II, 1970-71, cont'd.

- |   | Yes   | No    |
|---|-------|-------|
| 16. Do you believe the program will be of help to you in your sophomore year?   | _____ | _____ |
| 17. Do you believe that the summer component of the program was helpful?<br>If <u>yes</u> , in what way? If <u>no</u> , why not?  | _____ | _____ |
| 18. Do you believe that the enrichment or extracurricular activities (trips, movies, plays, etc.) were of any value to you?<br>If <u>yes</u> , in what way? If <u>no</u> , why not? | _____ | _____ |
| 19. Did you receive any medical help that you or your family were not financially able to obtain?   | _____ | _____ |
| 20. Would you be willing to assist (counseling and tutoring) the current enrollees in the program during the coming school year?  | _____ | _____ |
| 21. Do you plan to return to the university in the Fall?<br>If <u>no</u> , why not?   | _____ | _____ |
| 22. Do you believe that you will receive help from the project during the rest of your undergraduate career when and if you need it?  | _____ | _____ |
| 23. Did the program meet all your expectations, that is, did it do for you what you thought it would?   | _____ | _____ |
| 24. If you were in a position to change anything in the program that you thought needed changing, what would you change?<br>Why?  |       |       |